

Preserve or Plunder



Pre-Visit Activities

Prior to their visit students should have a basic understanding of the impacts humans can have on the environment and the importance of minimising and/or managing these problems. Encourage discussions on why they feel that it is important to protect the environment.

Activity 1: Caring for the Environment

Why is it important to protect the biodiversity of Port Phillip Bay? What do you see out there that you would want to preserve? Why is it important to preserve these?

On eight separate pieces of poster-sized paper write down the different statements relating to biodiversity (refer Worksheet 1) and hang each up across the classroom. Give the students a chance to read all of them and then ask them to stand by the statement they feel most strongly about. The students will then discuss their opinions with the other students that have chosen the same statement. Each group will then take turns to share with the class why they have chosen that particular statement. If any statement remains unchosen, discuss this with the class and work through accordingly.

Activity 2: What is a Marine Protected Area?

Have students investigate Marine Protected Areas (MPAs). Explore the reasons why the Victorian Government established 24 Marine National Parks and Sanctuaries surrounding Victoria. Using Worksheets 2a and 2b, students can design their own Marine National Park. Have them think about which sites have biological, historical, biodiversity or recreational value, as well as the different user groups that might be affected.

Post-Visit Activities

Following their visit students will have been introduced to a number of human impacts on Port Phillip Bay and the importance of preserving the biodiversity of the Bay.

Activity 1: Human Impacts on Port Phillip Bay

Students can continue to explore the issues that were introduced on their tour. Organise the students into three groups and have each group explore further into the issues of: over-fishing, pollution, or introduced species. Each group can use various resources to find information about their issue, the impact that it has on the environment, and strategies that may manage or minimise the problem. Each group can then present their findings to the rest of the class. The presentations can be done in the form of poster, Powerpoint, video, brochure, etc...

Activity 2: How can we protect the biodiversity of Port Phillip Bay?

This activity requires the students to use their knowledge and skills to come up with solutions that might protect the biodiversity of Port Phillip Bay. Begin by discussing the problems that are impacting upon the wellbeing of the Bay. Hand each student a copy of the “Priority Pyramid” (Worksheet 3a) and “Impacts on the Bay” (Worksheet 3b). The priority pyramid represents problems that need to be addressed in order to maintain a healthy bay. Students will create their own “Priority Pyramid” by adding each of the “Impacts on the Bay” in order of most to least destructive. The “impact” that they consider to be the most devastating to the health of the Bay would be at the very top and the least on the bottom. Once they have created their individual pyramid divide the students into groups of three. In these groups the students will share their pyramid with each other and then develop a group pyramid.

Using the agreed “top impact” each group will then develop some ideas to help reduce that particular problem.

For example: If the issue is over-fishing they would explain why it is a problem, what is being done about it today and what they could do to improve the problem.

OR

Using the agreed “top impact” each group will then design ways to educate the general public about the problem and ways of minimising it. For example, they could develop a brochure on the impacts of littering; have an information night to inform the public of the impacts of over-fishing; produce a Powerpoint presentation or web page; a video; or anything else that they can think of.

Activity 3: Controversial Environmental Issues

Analyse some of the different marine environmental issues, such as the ‘Channel Deepening’ or the impacts of the tuna industry on dolphin populations. Then have the students present their views in the form of a debate.

Worksheet 1: Why care about the environment?

Write each of the following eight statements on separate pieces of poster paper and then hang them up around the classroom.

1. **Conserving species is important for medical and economic reasons.**
2. **All organisms have the right to exist.**
3. **Our lives would not be as rich if we lost species, such as dolphins, seals, turtles, fish, gannets, etc...**
4. **As all things are linked, biodiversity is essential in maintaining ecological processes that help support life on earth.**
5. **No one has the right to destroy the environment that other people depend on.**
6. **Biodiversity is important for inspiring creativity and imagination.**
7. **Biodiversity is important for recreational activities, such as snorkelling and fishing.**
8. **Other**



Worksheet 2a: Designing a Marine National Park

The Government of the country “Hypothetical” has noticed a dramatic decline in the number of fish species over the past 100 years. After many meetings they have decided to set aside part/s of Hypothetical Bay as Marine Protected Areas (MPAs). You have been hired to decide where these areas should be designated, the total area of which cannot exceed 3000ha (30 km²).

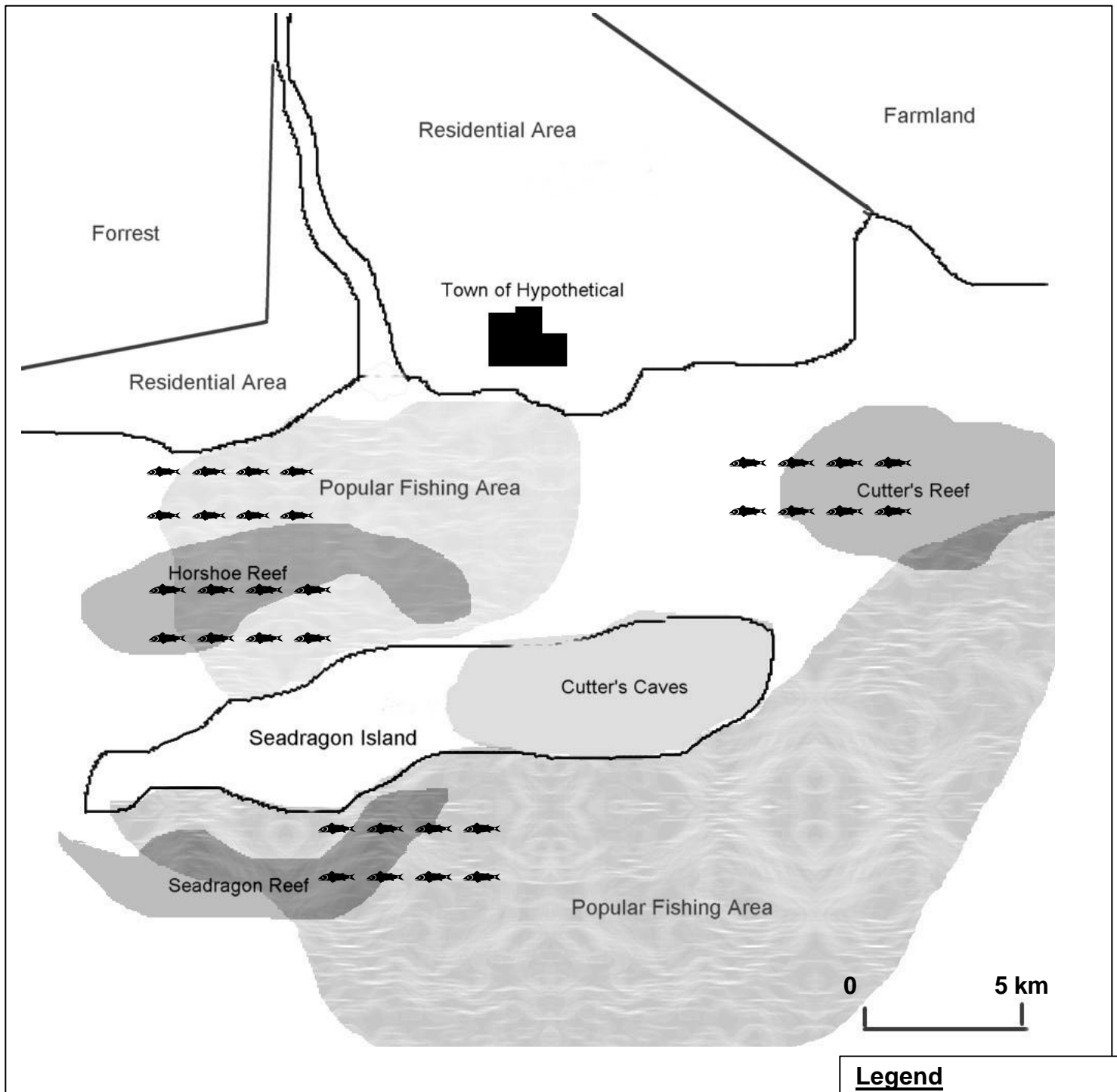
When deciding there are lots of things you need to take into consideration, for example:

- Popular fishing areas
- Reefs where there is high biodiversity
- Fish Breeding Grounds
- Towns

You then need to explain why you have chosen those site/s as a Marine National Park/s.






Worksheet 2b: Designing a Marine National Park



Explain why you declared these particular areas Marine National Parks?

Legend

-  Breeding Grounds
-  Fishing Area
-  Reef

Worksheet 3a: Priority Pyramid



Worksheet 3b: Impacts on the Bay



Channel Deepening



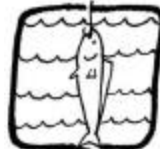
Development



Pollution from
Factories



Introduced Species



Overfishing



Recreational vessels



Farmland (run-off)



Littering



Marine National Parks



Ships

